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# **Market placement of microorganisms in Poland**



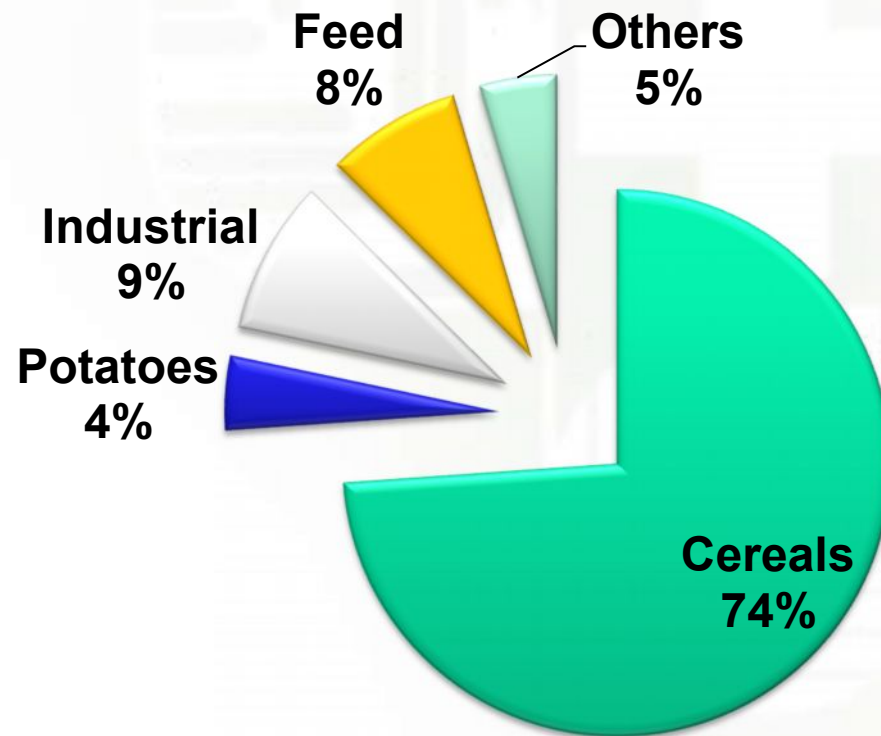
# Poland in 2012

[1.000 000 ha]

<b>Total area</b>	<b>31,3</b>
Agriculture land	15,0
Forests	9,4



# Main crops in Poland





# Agenda

- 1. Market placement of plant protection products containing microorganisms**
2. Registration of fertilizers
3. Registration time and cost



# Registration of plant protection products in Poland

- Responsibility:
  - Ministry of Agriculture and Rural Development
  - Department of Breeding and Plant Protection



# Plant protection products

- Register of 17.04.2014
- **1206** plant protection products on the Polish market
- among them **9** containing microorganisms (0,7%)
- + **2** with spinosad



# Plant Protection Products in Poland

Microorganism	Action /Number of registered products	Crops
<i>Aureobasidium pullulans</i>	Fungicide / 1	pome fruit (apple, pear)
<i>Cydia pomonella</i> Granulosis Virus	Insecticide / 3	pome fruit (apple, pear)
<i>Coniothyrium minutans</i>	Fungicide / 1	ornamentals, vegetables, oilseed rape
<i>Bacillus thuringiensis</i> var. Kurstaki	Insecticide / 2	vegetables (cabbage and pea) pine forests
<i>Bacillus thuringiensis</i> subsp. Tenebrionis	Insecticide /1	potato
<i>Pythium oligandrum</i>	Fungicide / 1	strawberry, vegetables, hop, cherry, raspberry, blackcurrant, ornamentals, tree nurseries



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# Registration of fertilizers in Poland

- Responsibility:
  - Ministry of Agriculture and Rural Development
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## Fertilizer registration includes:

- Fertilizers
- Growth stimulators
- Surface soil
- Soil conditioners (products improving soil properties)



# Microorganisms in fertilizers

- No information about microorganisms content is given in fertilizer official register in Poland
- The source of information – website of fertilizer producer
- In case of 10 products ( $\approx 1,3\%$ ) – lack of website and any available information



# Fertilizer register of 01.04.2014

Group	Total number in register	Number of products containing microorganisms
Fertilizers	312	4
Growth stimulators	21	5
Surface soil	366	4
Soil conditioners	89	8
<b>Total</b>	<b>788</b>	<b>21 (≈2,7%)</b>



# Microorganisms in fertilizers

Group	Microorganisms
Fertilizers	Bacteria; Microorganisms; Saprotrophic microorganisms; Ureae bacteria, Pedotrophic microorganisms; Effective Micro-Organisms;
Growth stimulators	<i>Rhizobium</i> or <i>Bradyrhizobium</i> bacteria (all products) - fix nitrogen after becoming established inside root nodules of legumes
Surface soil	Lactic acid bacteria, Photosynthesis bacteria, Yeast (all products)
Soil conditioners	Fungi and bacteria cultures; Microorganisms; Yeast; Saprophytic fungi; <i>Azotobacter</i> , <i>Actinobacteria</i> and photosynthesis bacteria; Effective Micro-Organisms;



# New decision of Ministry of Agriculture

- From March 2014  
it is no more possible to register  
microorganisms as fertilizers in Poland

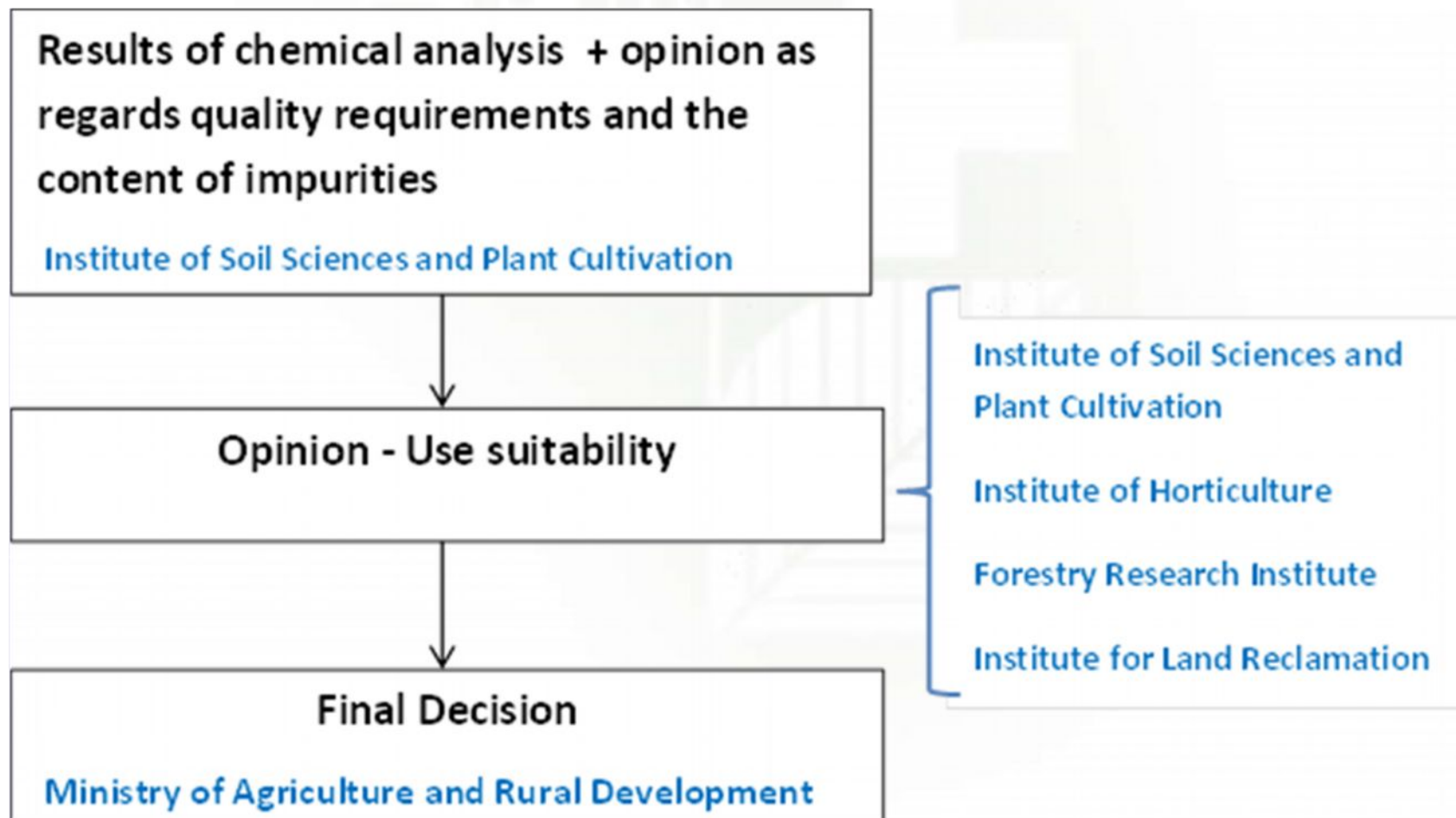


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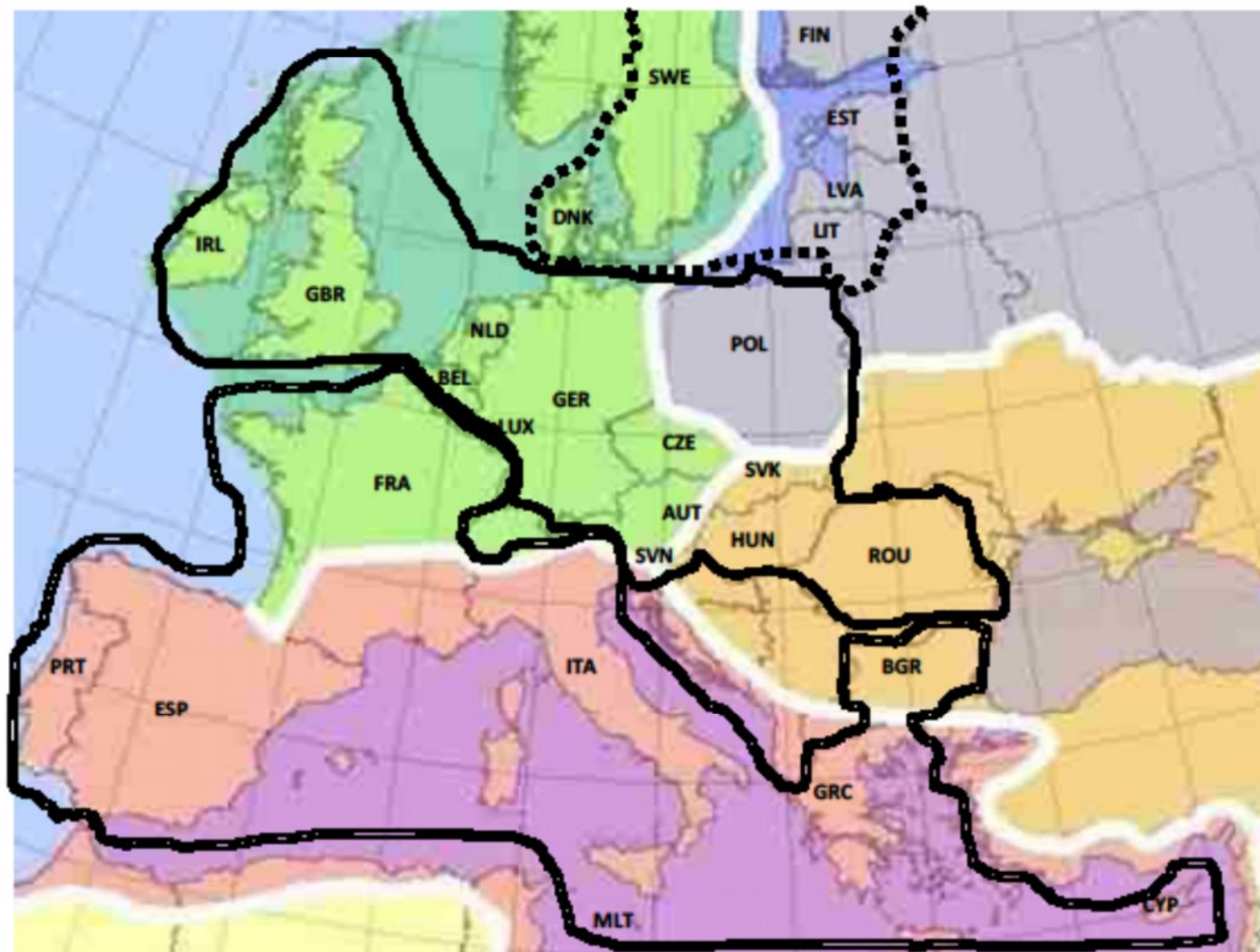


# Registration procedure of fertilizers in Poland





Representation of EPPO climatic zones (in colour: EPPO Standard PP1/241, *Guidance on comparable climates*) superimposed with the three European zones (EC Regulation 1107/2009).





Thank you for your attention